NATURAL RESOURCES CONSERVATION SERVICE
INTERIM CONSERVATION PRACTICE STANDARD

INCINERATOR

(Ea.)
CODE 769

DEFINITION

An incinerator used to dispose of dead poultry, suckling pigs, or other small animals.

PURPOSE

This practice may be applied as part of a conservation management system to provide a suitable disposal method of dead poultry or small animals to prevent pollution and improve environmental quality. This standard covers the planning and design of a manufactured incinerator for the disposal of dead poultry or small animals encountered on farms as part of normal farming operations.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies where current disposal practices of dead poultry or small animals are unsatisfactory and where there is a need to improve sanitation, reduce pollution, or enhance the visual resource.

CRITERIA

General. All Federal, state, and local laws, rules, and regulations governing waste management, pollution abatement, and health and safety shall be strictly adhered to. The owner or operator shall be responsible for securing all required permits, approvals, and registration and for the operation of the unit in accordance with appropriate laws, rules, and regulations. Incinerator owners or operators must obtain air construction and operating permits pursuant to Florida Department of Environmental Protection (FDEP) Rules 62-210.300(1) and 62-210.300(4)(a)9 Florida Administrative Code (F.A.C.). Incinerators shall meet the requirements contained in Rule 62.296.401(6) F.A.C. Permits must be obtained prior to construction and operation.

Emissions. Incinerator particulate matter emissions, carbon monoxide (CO) emissions, and visible emissions shall not exceed the requirements of Rules 62-296.401(1) & (6) F.A.C.

The incinerator shall not cause, suffer, or allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor.

Combustion. The incinerator must be dual chamber burning. The secondary chamber shall have sufficient volume for at least a 1.0 second gas residence time at 1800 degrees Fahrenheit. The actual operating temperature of the secondary chamber combustion zone shall be no less than 1600 degrees Fahrenheit throughout the combustion process in the primary chamber. Primary chamber and stack shall not be used in calculating this residence time. Cremation in the primary chamber shall not begin unless the secondary chamber combustion zone temperature is equal to or greater than 1600 degrees Fahrenheit.

Capacity. The required minimum incinerator capacity shall be based on the maximum daily weight of animal carcasses during a typical

growing cycle. The maximum daily weight of animal carcasses shall be based on mortality data over several growing cycles excluding catastrophic losses. In the absence of specific landowner mortality data, incinerator capacity shall be based on similar operations in the local area.

The required minimum incinerator size shall be the smallest size available that will incinerate the required minimum capacity in 2 or 3 burns within a 24 hour period of time.

Material. Incinerators installed under this standard shall be constructed of durable material with a life expectancy equal to the planned life of the structure.

Location. Incinerators shall be located sufficient distance, as recommended by the manufacturer, from any building to prevent spontaneous combustion.

The placement of the propane tank with respect to the incinerator will comply with all safety regulations.

Protection. The incinerator will be located on a reinforced (fiber or steel) concrete slab for stability and safety. The concrete slab shall extend sufficient distance on all sides of the incinerator base to accommodate management of the facility. The top of the concrete slab shall be a minimum of 0.5 foot above natural ground. The area surrounding the concrete slab shall be shaped in such a way as to drain or divert all overland and roof runoff safely away from the structure and surrounding work area.

Installation. Electrical installation shall meet the requirements of the National Electrical Code (NEC) and state and local codes and must be certified in writing by a qualified licensed electrician. All electric wiring shall be in a conduit at the incinerator.

Gas hook-up must be certified in writing by a qualified licensed Liquified Petroleum contractor to meet applicable National Fire Protection Association (NFPA) codes; all other National, state and local codes; and in conformance with the manufacture's recommendations.

Fuel storage for diesel powered units shall be installed in accordance with manufacturer's recommendations and shall meet all applicable state and local codes, rules and regulations.

Vegetation. All disturbed areas shall be vegetated in accordance with NRCS conservation practice standard Critical Area Planting, Code 342.

CONSIDERATIONS

Consideration should be given to protecting the incinerator with a metal roof to extend the life of the unit. The roof structure will be constructed using metal trusses and purlins in accordance with manufacturer's recommendations. Size of structure and clearances shall be as recommended by the incinerator manufacturer.

Incinerators should be located as far as practical from any structure, well, spring, or surface water course. Recommended distances are as follows.

- at least 50 feet from any surface water course
- at least 100 feet from any well or water source
- at least 20 feet from any building to prevent spontaneous combustion

Growers should carefully estimate the capacity needed to manage daily mortalities and include other disposal methods in their resource management plan to cover situations in which heavy, unexpected losses occur.

Where air emissions are a concern, consideration should be given to alternate methods of disposal (composting, rendering, etc.).

Consideration should be given to the operating cost of the incinerator. Local fuel cost rates should be used to estimate these expenses.

Due consideration should be given to economics, the overall waste management system plan, and safety and health factors.

PLANS AND SPECIFICATIONS

Plans and specifications shall be prepared in accordance with the criteria of this standard and shall describe the requirements for applying the practice to achieve its intended use.

OPERATION AND MAINTENANCE

An operation and maintenance plan shall be developed that is consistent with the purposes of the practice, it's intended life, safety requirements, and the criteria for its design.

Incinerators shall only be used for the cremation of dead animals.

Incinerators must be operated properly to maximize equipment life and minimize emission problems. Any operator of an incinerator shall be trained and licensed by the manufacturer's representative or an equivalent organization using a state-approved training program. A licensed operator must be on-site when the incinerator is in operation.

The incinerator must be loaded according to manufacturer's recommendations. Ashes should be removed frequently to maximize combustion and prevent damage to equipment. Plans shall include methods for collecting and disposing of the ash material remaining after incineration. The plan shall include an ash collection box or bucket and disposal of the ash on the land or through a community trash disposal system.

The incinerator must be inspected periodically to ensure that all components are operating as planned and in accordance with the manufacturer's recommendations.

REFERENCES

FDEP Chapters
- 62-4 F.A.C.
- 62-210 F.A.C.
- 62-296 F.A.C.
- 62-297 F.A.C.

NRCS conservation practice standard Critical Area Planting, Code 342